

SMITHSONIAN CONTRIBUTIONS TO KNOWLEDGE.

OBSERVATIONS
ON
MEXICAN HISTORY AND ARCHÆOLOGY,

WITH A SPECIAL NOTICE OF

ZAPOTEC REMAINS,

AS

DELINEATED IN MR. J. G. SAWKINS'S DRAWINGS OF MITLA, ETC.

BY

BRANTZ MAYER.

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COMMISSION
TO WHICH THIS PAPER HAS BEEN REFERRED.

SAMUEL F. HAVEN,
E. H. DAVIS, M. D.

JOSEPH HENRY,
Secretary S. I.

MEXICAN HISTORY AND ARCHÆOLOGY;

ZAPOTEC ARCHITECTURE, ETC., AT MITLA.

CHAPTER I.

DURING the last twenty years, the attention of students has been directed with much zeal to the investigation of American Archæology. The peopling of our continent, the romantic ideas attached to the remnants of our Indian race, the strangeness of their architectural remains, and sometimes mere curiosity, have been the motives for this labor; yet it is to be regretted that no very definite *historical* results have been obtained from these studies, and that it is probable the future will be equally barren of scientific certainty. The works of McCulloh, Schoolcraft, Gallatin, Rafinesque, Bradford, Squier, Davis, Lapham, Whittlesey, and others, in regard to the aboriginal remains within the limits of the United States; and the publications of the American Ethnological Society; the vast repository of Lord Kingsborough's volumes relative to Mexican antiquities; the admirable work of Antonio Gama; the illustrated publications of Stephens, Catherwood, Norman, and Squier, on Yucatan, Central America, Nicaragua, and Honduras; the *Crania Americana* of Morton, and the *Peruvian Antiquities* of Von Tschudi,—have presented us, mainly, the physical remains of our ancient continent; but, while they serve to stimulate our curiosity and wonder, they have done very little in elucidating the national antiquity or personal story of our aborigines. After a careful study of all these books, the question may still be properly asked: Who were the Indians of this northern continent and whence did they come? Who were the Toltecs, Chichimecs, and Aztecs of Mexico? What was their origin, and what are the facts and exact chronology of their history? Who built and dwelt in the civilized cities of Yucatan? What was the origin of the wealth, refinement, and polity of Peru? Who were the Araucanians? In fact, excepting the fanciful traditions of the northern tribes at the period of European occupation, and the few scattered "picture writings" and legends of Mexico, we have very little but architectural, image, and utensil remains, to inform us how far the inhabitants of the western world had advanced beyond the mere supply of animal wants, towards those higher degrees of intellectual and social progress, in which taste, sensibility, and moral feeling expand into civilization.

This *progress* is shown by the traditions or written history of all people who have emerged from barbarism. They hunger, and, at first, allay the cravings of appetite by the fruits of the earth, or invent the simplest instruments to pursue the chase. They suffer from cold, and clothe themselves in the skins of beasts they have

slain. They are exposed to the rain and frost of winter, or the heat of summer, and, after finding the forest boughs inadequate for protection, they learn to build for temporary or permanent comfort. As the family grows into a tribe, and the tribe multiplies its numbers, they congregate in villages or towns, which, through fear or affection, become affiliated by the bond of nationality. During this process, which often requires centuries, according to the grade of aggregate intellect, all the wants and passions of society make themselves gradually known. They develop gradually in the natural growth of a people. Municipalities and states beget police, law, government. The changes of day and night are beheld; the regular motion of sun, moon, and stars is noted; seasons are marked; and the simpler portions of astronomy are developed in the scientific division of time, as chronicled in the dial of the sky. The rivalry of neighboring states begets wars; and thence, protection ensues in the shape of arms, soldiery, arsenals, military experience, and fortifications. The inevitable conviction of a creative and preservative Power impresses the minds of all with a religious sentiment, which begets worship and builds temples, either for adoration or propitiation, according as the national mind is exalted or grovelling. And, finally, as the people observe the necessity of recurring to the past for facts and principles, they advance from oral tradition to written and monumental records, which modern civilization endeavors to ripen into history.

Now, in the absence of explicit records in regard to American nations, the object of antiquarian research, at present, is not so much to penetrate, by fanciful guesses or resemblances, the periods antecedent to the European occupation of our continent, as to fix the world's attention on the *actual* condition of the aboriginal nations at the period of the conquest, and to endeavor, from their remains, to form a fair estimate of their relative *status* at that time. I consider this the true and best object to propose; because, most of the records—legendary, hieroglyphic, or monumental—concerning the antiquity of the chief centres of civilization on this continent, which were rescued from destruction, have been deciphered as far as practicable, and their valuable facts detailed by investigators. Of all things, the American antiquarian should, as yet, avoid the peril of starting in his investigations *with an hypothesis*, for the chances are very great that, in the mythic confusion of our aboriginal past, he will find abundant hints to justify any ideas excited by his credulity or hopes. In the present state of our archæology, all labors should be *contributions to that store of facts*, which, in time, may form a mass of testimony whence future historians shall either draw a rational picture of ante-Columbian civilization, or be justified in declaring that there is nothing more to be disclosed.

The ancient history of our own tribes, it is well known, is a matter of tradition alone, for they had no written language; or, if they had, their story was not engraved on monuments or transmitted on imperishable materials. Their wampum and pictographs may scarcely be entitled to consideration for permanent or historical purposes. Among the Peruvians, the *quipu* was only a species of *memoria technica*, and served rather to aid arithmeticians and financiers, than to establish an independence of individual recollection. The Aztecs, and perhaps their predecessors in the valley of Mexico, possessed a "picture writing," which was chiefly used for the recording of facts apart from abstract ideas; but the Spaniards who seized Peru

and Mexico did not protect these simple archives, flimsy as they were, from destruction by an ignorant soldiery and their superstitious companions. The Mexican "picture writing" consisted of several elements: an arbitrary system of symbols to denote years, months, days, seasons, the elements, and events of frequent occurrence; an effort to delineate persons and their acts by rude drawings; and a phonetic system, which, through objects, conveyed sounds that, singly or in combination, expressed the facts they were designed to record. This imperfect and mixed process of painting and symbolizing thought, was stopped at this stage, for it was the extent of Aztec invention at the period of the conquest, and it is difficult to judge, from the known character of the people, whether further progress would have been made. But this inquiry is of comparatively small importance, as the archives of Mexico and Tezcoco, containing "picture writings" which were regarded by the Spaniards as the "symbols of a pestilent superstition," were piled in a heap by order of Zumarraga, the first archbishop of Mexico, and reduced to ashes.¹ This species of literary *auto da fé* was imitated by other Spanish authorities, so that every painted paper or graven image they found was soon annihilated by the invaders. Still, a few of these relics escaped the general wreck, and were deposited in the Royal Libraries of Paris, Berlin, and Dresden; the Imperial Library of Vienna; the Museum and Vatican at Rome; the library of the Institute at Bologna; and in the Bodleian Library at Oxford.

In summing up the character of the most important of these relics, Mr. Gallatin observes that, "whatever may have been the value of the Mexican paintings destroyed by the Spanish clergy, it has now been shown that those which have been preserved contain but a meagre account of the Mexican history for the one hundred years preceding the conquest, and hardly anything that relates to prior events."² The consequence of this is, that the antecedent history of the aboriginal nations inhabiting the territory of modern Mexico must rest upon the reports of early Spanish writers, their monumental remains, and, perhaps mainly, on the questionable authority of Ixtlilxochitl.³

¹ Prescott, Conquest of Mexico, I, 101. See his authorities.

² Am. Ethnological Soc. Trans., I, 145.

³ The sources of information in regard to early Mexican *history* and *antiquity* are the following:—

	The Codex Vaticanus, No. 3776.
	" Vaticanus, No. 3738.
	" Borgianus, of Veletri.
	" Bologna.
	" Pess Hungary, of Mr. Fejervari.
No. 1. The Mexican Paintings, &c.	" Oxford, Arbp: Laud.
These are engraved in Lord	" Vienna.
Kingsborough's 1st, 2d, and 3d	" Oxford, Bodleian.
volumes of Mexican Antiqui-	" Oxford, Selden.
ties.	" Berlin, of Humboldt.
	" Dresden.
	" Boturini.
	" Paris, Tell:
	" Tellurianus Remensis.
	" Oxford, Mendoza Collection.

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"Clavigero," says Prescott,¹ "talks of Boturini's having written 'on the faith of Toltec historians.'² But that scholar does *not pretend to have ever met a Toltec MS. himself*, and had heard of *only one* in the possession of Ixtlilxochitl.³ The latter writer tells us that his account of the Toltec and Chichimec nations was 'derived from *interpretation*' (probably of the Tezcocan paintings), 'and from the traditions of old men';⁴ poor authority for events which had passed centuries before." This depreciation of the sources of recorded and traditional information in regard to Mexico by Mr. Prescott, has drawn a critical notice from Don José F. Ramirez, in his notes on the Spanish translation of the history of the conquest, published in Mexico.⁵ The criticism, though earnest and ingenious, does not seem to improve our sources of knowledge and their authoritative value. Señor Ramirez was naturally anxious to sustain the idea of an extremely ancient civilization, and to destroy as much as possible the fabulous air which some of the Spanish narratives were

No. 2. Torquemada's "Monarchia Indiana."

3. Bernardino de Sahaguns's "Historia Universal de Nueva Espania."

4. Boturini's "Idea da una Nueva Historia General de la America Septentrional."

5. Fernando de Alva Ixtlilxochitl's "Relaciones, Historia Chichimeca."

6. Castañeda's "Viaje a Cibola," 1540.

7. Fray Bartolomé de las Casas, "Historia General de las Indias," &c. &c.

8. Antonio de Herrera's "Historia General de las Indias Occidentales."

9. Torebio de Benavente, "Historia General de los Indios de Nueva Espania."

10. Pietro Martire de Anglera, "Decades de Orbe Novo." 1587.

11. Gonzalo de Oviedo y Valdes, "Historia General de las Indias."

12. Diego Muños Camargo's "Historia de Tlascalá—pedazo de historia verdadera."

13. Francisco Lopez de Gomara's "Cronica de la Nueva Espania."

14. Bernal Diaz del Castillo's "Historia Verdadera de la Conquesta de la Nueva Espania."

15. Pesquisia contra "Pedro de Alvarado y Nuño de Guzman."

16. Don Martin Veytia's "Historia Antigua de Mejico."

17. Clavigero's "Storia Antica de Messico."

18. Antonio Leon y Gama's "Descripcion de las dos Piedras," &c. &c. &c. 1832.

19. Lord Kingsborough's "Mexican Antiquities." London, 1830.

20. Cavo y Bustamante's "Tres Siglos de Mejico."

21. Alaman's works on Mexican History, &c. &c.

22. Nebel, "Voyage Pittoresque et Archæologique à Mexique."

23. Stephens's works on Central America, Yucatan, and Chiapas.

24. Norman's works on Yucatan and Mexico.

25. Catherwood's illustrations of Stephens's works.

26. Bartlett's "Personal Narrative."

27. Mexico: Aztec, Spanish, and Republican.

28. De Solis, "Historia de la Conquista de Mejico."

29. Robertson's "History of America."

30. Prescott's "History of the Conquest of Mexico."

31. Ramirez, Notes on the Spanish translation of the last work;—Mexico, 1844.

32. The vols. of the American Ethnological Society's Transactions."

¹ Prescott, Conq. Mex., I, 12, *note*.

² Storia de Messico, I, 128.

³ Nueva Historia General, p. 110.

⁴ Ixtlilxochitl, Rel.

⁵ Prescott, Conquista de Mejico, vol. II; *notes*, p. 1.

calculated to throw around it. He admits, I think with great justice, that Antonio de Leon y Gama "has achieved the first and *only* rigorously archæological investigation in his country;"¹ and he very properly adds, in regard to these mythic periods, that "historical criticism, notwithstanding the quantity written on the subject, is probably the most difficult and least advanced portion of Mexican literature; for, while some of our writers incur imminent risk from excessive credulity, others are governed by a scepticism which is radically destructive of all scientific investigation. A history may be true and highly instructive, though it contains the most incredible absurdities; for while it states what may be absolutely false, either through invention or insufficient proof, *it may faithfully transmit the traditions, beliefs, and customs of the people it describes.* * * * * Mexican history, like that of all nations, is made up of two classes of narratives; the usages, customs, and ruling beliefs *which present the type of the people*, and of the public and private life of its eminent men, together with facts which concern *the mass* of the community, and constitute the very life and essence of a people."²

Thus, it may be said that the deciphered picture writings found among the Mexicans by the Spaniards, together with the traditions recorded by Ixtlilxochitl, Sahagun, and others, will, in all likelihood, be found to present a typical idea of the individual, tribal, and national character. Some great historical facts may stand out in bold relief; some persons, and certain biographical incidents may appear in shadowy outline through the veil of the past; but the whole antiquity, blurred by dilapidation, looms up dimly, like a noble ruin in the gloom of twilight.

¹ Gama's "Descripcion historica y chronologica de las dos piedras descubiertas en la plaza principal de esta ciudad." Mexico, 1832. 2d edition.

² Ramirez; Notes to the Spanish translation of Prescott's Conq. Mex., II, p. 8 (*of notes*).

CHAPTER II.

THE letters of Cortez to the Emperor Charles V., and the writings of Bernal Diaz del Castillo, Sahagun, Torquemada, Las Casas, Oviedo, Boturini, Veytia, and Clavigero, digested as they have been in the valuable work of Mr. Prescott, display a picture of the Aztec people as they existed at the period of European occupation. We are informed, no doubt accurately, as to much of the religion, laws, science, and social life of the conquered. The Spanish exaggerations were thoroughly examined, and the essential, characteristic facts have been preserved for our acceptance.

The ancient history of the foundation of the Aztec empire, stripped of most of its myths, may be comprised in a few paragraphs.

At the period of the conquest by Cortez, the Vale of Anahuac, with its assemblage of lakes, levels, and mountains, seems to have been the conceded seat and centre of greatest civilization on the northern continent. Yucatan and the territory of the Zapotecs were doubtless inhabited by a refined people; but they were probably subordinate to the Aztecs by conquest. The received traditions as to the Vale of Anahuac declare that the original inhabitants came from some unknown place "at the north," and, in the fifth or eighth century, settled at Tollan or Tula, in the neighborhood of the Mexican Valley. This spot became the parent hive of an industrious and progressive people, whose northern frames and characters were civilized and not emasculated by the more genial climate to which they migrated. They cultivated the soil, built extensive cities, conquered their neighbors, and, after performing their allotted task in the development of our continent, wasted away in the tenth or eleventh century, under the desolation of famine and unsuccessful wars. The Toltec remnant emigrated southward; and, during the next hundred years, the valleys and mountains of this beautiful region were nearly abandoned, until a rude tribe, known as the Chichimecas, came "from the north," and settled among the ruins abandoned by the Toltecs. Some years afterwards, six tribes of the Nahuatlacs reached the valley, announcing the approach of another band "from the north," known as the Aztecs. About this period, the Acolhuans, who bordered on the Chichimecas before their southward emigration, entered the Valley of Anahuac, and allied themselves with their ancient neighbors. These tribes appear to have been the founders of the Tezcocan government, which, in the fifteenth century was consolidated by the courage and talents of Nezahualcoyotl.

Thus it was that wave after wave of population poured "*from the north*" into the valley, till it was reached by the Aztecs, who, about the year 1160, left their mysterious and unknown "northern" site at Aztlan. Their wanderings were slow. It is alleged that one hundred and sixty-five years elapsed before they

descried "an eagle grasping in his claw a writhing serpent, and resting on a cactus which sprang from a rock in the Lake of Tezcoco. This had been designated by the Aztec oracles as the spot where the tribe should settle, after its long and weary migration; and, accordingly, the city of Tenochtitlan was founded on the sacred rock, and, like another Venice, rose from the bosom of the placid waters.

"It was nearly a hundred years after the founding of the city, and in the beginning of the fifteenth century, that the Tepanecs attacked the Tezcocan monarchy. The Tezcocans and the Aztecs united to put down the spoiler, and, as a recompense for the important services of the allies, the supreme dominion of the territory of the Tezcocans was transferred to the Aztecs. The Tezcocan sovereigns thus became, in a measure, mediatized princes of the Mexican throne; and the two states, together with the neighboring small state of Tlacopan, south of Lake Chalco, formed an offensive and defensive league, which was sustained with unwavering fidelity throughout the wars of the succeeding century. The bold allies united in the spirit of conquest and plunder which characterizes a rude, martial people, as soon as they are surrounded by the necessities and comforts of life in their own country, or whenever the increase of population begins to require a vent through which it may expend those energies which would explode in civil war, if pent up within so small a realm as the Valley of Mexico. Accordingly, we find that the sway of these tribes, which had but just nestled among the rocks and marshes of the lakes, was quickly spread beyond the mountains that hemmed in the valley. The Aztec arms were triumphant throughout all the plains that swept down towards the Atlantic and Pacific, and penetrated, as is alleged by some authorities, even to Guatemala and Nicaragua."¹

Large, however, as was this dominion of the Aztecs and their allies, it must be recollected that their territorial power did not cover the entire region which was known subsequently as New Spain or Mexico. In addition to the tribes or states I have mentioned in this notice, as constituting the nucleus of the empire at the period of the conquest, there were numerous other aboriginal powers, among which the Cholulans and Tlascalans were the most eminent. Besides these, there were, on territory now comprehended within the Mexican Republic, the Tarascos, who inhabited Michoacan, an independent sovereignty; the barbarous Ottomies; the Olmecs; the Xilancas; the Mistecas; and the Zapotecs. The Aztec arms had recently subdued the region of Oajaca, and the last-named tribe, with all its civilization, had submitted to Ahuitzotl.²

There was something, doubtless, in the geographical position and geological structure of this remarkable region, that assisted in making it the seat of empire. History shows that colonial offshoots are modified by climatic change. The great

¹ Mexico: Aztec, Spanish, and Republican, I, 96.

² As an illustration of the uncertainty of the early aboriginal history of Mexican tribes and nations, and especially of their chronology, I annex the following tables of their emigrations from the north, and of the duration of the reigns of Mexican sovereigns. They were compiled by Mr. Gallatin from a comparison of Ixtlilxochitl, Sahagun, Veytia, Clavigero, the Mendoza collection of ancient picture writings, the Codex Tellurianus, and Acosta, and inserted in the 1st vol. of our Ethnological Society's Transactions, p. 162. The tables will be found on the next page.

features of Mexico are the same now that they were in the tenth and sixteenth centuries. The waters of the Atlantic, sweeping along the central parts of our continent, and compressed within the gulf by the curving shores of Florida and

	Ixtlilxochitl.	Sahagun.	Veytia.	Clavigero.
TOLTEC EMIGRATION, &c.				
Arrived at Huehuetlalpallan	387	...	...	...
Departed from Huehuetlalpallan . . . . .	...	...	596	544
They found Tula	498	...	713	720
Monarchy begins	510	...	...	667
Monarchy ends	959	...	1116	1051
CHICHIMECAS AND ACOLHUANS OR TEZCOCANS.				
Xolotl, 1st king, occupies the valley of Mexico	963	...	1120	about 1170
Napoltzin, 2d king, ascends the throne	1075	...	1232	13 cen.
Huetzin } 3d king, so called erroneously, ascends the throne	1107	...	1263	14 cen.
Plotzin }				
Quinantzin, 4th king, ascends the throne	1141	...	1298	14 cen.
Tlaltecatzin, 1st king according to Sahagun, ascends the throne . . . . .	...	1246	...	...
Techotlatzin 5th (2d Sahagun) ascends the throne	1253	1271	1357	14 cen.
Ixtlilxochitl 6th (3d Sahagun) ascends the throne	1357	1331	1409	1406
Netzahual-Coyotzin 7th (4th, Sahagun) ascends the throne	1418	1392	1418	1426
Netzahual-Piltzintli 8th (5th, Sahagun) ascends the throne	1462	1463	...	1470
Netzahual-Piltzintli dies	1515	1516	...	1516
TEPANECs, OR TECPANECs OF ACAPULCO.				
Acolhua arrives	1011	...	1158	...
Acolhua, 2d son of Acolhua 1st, arrives . . . . .	...	...	1239	...
Tezozomac, son according to D'Alva, grandson according to Veytia, of the 1st Acolhua, arrives	1299	1348	1343	...
Maxtlan, son of Tezozomac, arrives	1427	...	1427	1422
MEXICAN OR AZTEC EMIGRATION.				
Mexicans leave Aztlan . . . . .	...	...	1064	1160
" arrive at Huelcolhuacan . . . . .	...	...	...	1168
" " at Chicomotzoc . . . . .	...	...	1168	...
" " at valley of Mexico	1141	...	1227	1216
" " at Chapultepec . . . . .	...	...	{ 1248 1276	1245

	Mendoza's Collection.	Codex Tellerianus.	Acosta.	Siguenza.	Ixtlilxochitl.	Sahagun.	Veytia.	Clavigero.
MEXICAN OR AZTEC POWER.								
Foundation of Mexico or Tenoctitlan	1324	...	...	1325	1220	...	1325	1325
Acamapichtli, elected king	1375	1399	1384	1361	1141	1384	1361	1352
Huitzilihuitl, accession	1396	1406	1424	1403	1353	...	1402	1389
Chimalpopoca	1417	1414	1427	1414	1357	...	1414	1409
Ytzcoatl	1427	1426	1437	1427	1427	...	1427	1423
Montezuma 1st	1440	1440	1449	1440	1440	...	...	1436
Acayacatl	1469	1469	1481	1468	1469	...	...	1464
Tizoc	1482	1483	1487	1481	1483	...	...	1477
Ahuitzol	1486	1486	1492	1486	1486	...	...	1482
Montezuma 2d	1502	1502	1503	1502	1503	...	...	1502
DURATION OF REIGNS OF MEXICAN KINGS.								
Acamapichtli	21	7	40	42	150	21	41	37
Huitzilihuitl	21	8	3	11	50	21	12	20
Chimalpopoca	10	12	10	13	70	10	13	14
Ytzcoatl	13	14	12	13	13	14	...	13
Montezuma 1st	29	29	32	28	29	30	...	28
Acayacatl	13	14	6	13	14	14	...	13
Tizoc	4	3	5	5	3	4	...	5
Ahuitzol	16	16	11	16	17	8	...	16
Montezuma 2d	17	17	16	17	17	19	...	17

The discrepancies between these authorities, amounting, in many cases, not only to years but centuries, show the extremely unreliable and mythic character of the records and traditions of the ante-Columbian period.

Yucatan, whirl the shifting bed of the sea in continual eddies at the mouths of the few rivers that pour into it, and create the formidable bars and shoals which make the eastern coast so dangerous an anchorage. But on the west, the shores of the Pacific are favored with tranquil and commodious havens, while numerous indentations break the rugged outline of the coast with landlocked bays.

The voyager may sail from the extreme eastern shores of our continent to the very centre of the Mexican Gulf-coast, along a low sandy beach, visible only at a short distance from the sea; but as he advances to that point, the snowy peak of Orizaba, towering seventeen thousand feet above the ocean, looms up in the distance like an outpost sentinel of Mexico, indicating his approach to the dividing ridge of lofty mountains. The vast Cordillera which rises near the Frozen Sea, descends southward in a series of mighty waves through the whole of this continent, until it is lost in the ocean at Cape Horn; while at the Isthmus which links the great body of North to South America, it parts the two seas that strive to meet across this narrowest portion of the Western World. Between the 16th and 33d degrees of north latitude, this mountain range sends forth a multitude of spurs and branches, and, within that confined space, piled on a massive base of *sierras*, rising from the Atlantic till they reach the height of nearly eighteen thousand feet, and thence plunging westward into the Pacific, is the territory of Mexico, hung upon these sloping cliffs, and resting among the sheltered recesses of their upland valleys.

Two important rivers may be said to form the *natural* northern boundary of this region. The snow that melts on the Sierra Nevada, descends, one-half to feed the fountains of the Rio Grande, which winds through an immense extent of country before it falls into the Gulf of Mexico—and one-half to swell the Colorado of California, before it reaches the Pacific through the Sea of Cortez. The sources of these two streams nearly meet at the same mountain, in the neighborhood of the fortieth degree; but the configuration of the earth essentially varies between the northern and southern sides of these rivers. From their northern banks the land recedes in comparative levels, interspersed with arid wastes and prairies, sloping gradually to the Pacific and Atlantic; while from their southern banks the country almost directly breaks into the steeps of the Sierra Nevada, whose multiplied veins enlance the whole of Mexico with a massive network. Uncertain streams—none of which are navigable, and all dependent on rain for their floods—pour down the precipitous defiles, on their way to the seas. As the centre of this territory is approached, the naked Cordilleras become loftier and loftier, as if to guard, with double security, the heart of the nation; while, in the midst of this sublime congregation of mountains, rise still more majestic peaks crowned with eternal snow, presiding over the beautiful valley of Anahuac, wherein the ancient Aztec capital nestled on the border of its crystal lake. Flanked by two oceans, and rising from both to the rich plateaus of the table-land, Mexico possesses, on both acclivities, all the temperatures of the world, and ranges from the orange and plantain on the sea-shore, to eternal ice on the precipices that overhang the higher valleys. Change of climate is attained merely by ascending, and, in a region where the country rises steeply, the broad-leaved aloe and feathery palm may be seen relieved against the

everlasting snow of Popocateptl. All these delightful climates produce the fruits and flowers of the tropics on the same parallel of latitude that crosses continual frost, while, over all, a never ending spring bends its cloudless arch. Nor are these the only allurements of this wonderful land, for nature, as if unsatisfied with pampering the tastes of man by crowding the surface of the earth with everything that might please his appetite or delight his eye, has veined its sterile mountains with precious ores in exhaustless quantity.

It is not surprising that hardy races *from the northern hive*, where vigor is gained from toil and where toil wrests existence from an ungenerous soil, abandoned their savage habits and were subdued into a masculine civilization by a country and climate like these. It was a tropical Switzerland. Such a people, by migration, may lose nothing of their energy except its barbarism, and gain nothing from the softer skies but their genial blandness.

CHAPTER III.

It is conceded that, at the period of the first European occupation, all parts of North and South America were peopled ; and Dr. Morton, in his elaborate "Inquiry into the Distinctive Characteristics of the Aboriginal Race of America,"¹ says, "That the study of *physical conformation alone*, excludes every branch of the Caucasian race from any obvious participation in the peopling of this continent." * * * * "Our conclusion," he continues, "long ago deduced from a patient examination of the facts thus briefly and inadequately stated, is that the American race is essentially separate and peculiar, whether we regard it in its physical, its moral, or its intellectual relations. * * * I maintain that the organic characters of the people themselves, through all the endless ramifications of tribes or nations, prove them to belong to one and the same race, and that this race is distinct from all others."

Without stopping to discuss Dr. Morton's opinion, let us now consider the general characteristics of the remains still visible on this continent, and especially of the architectural antiquities of Mexico.

"Architecture is one of those massive records, either of intelligence or absurdity, which require too much labor in order to perpetuate a falsehood. It shows what the men could do, be it good or bad, elegant or hideous, civilized or barbaric. The men who built the edifices of Uxmal, Palenque, Copan, and Chichen-Itza, were far removed from the condition of nomadic tribes. Taste and luxury had long been grafted on the mere wants of the natives. They had learned to build, not only for protection against weather, but for permanent residences whose internal arrangements afforded comfort, and whose external embellishment might gratify public taste. Order, symmetry, elegance, beauty of ornament, gracefulness of symbolic imagery, had all combined for the manifestations which are always beheld among people who are not only anxious to gratify others as well as themselves, but to vie with each other in the exhibition of individual tastes. Here, however, as in Egypt, the remains are chiefly of temples, palaces, and tombs. The worship of God, the safety of the body after death, and obedience to authority, are demonstrated by the temple, tomb, and rock-built palace. The masses who felt or imagined they had no constant abiding place on earth, and that posterity had little interest in them as individuals, did not, in all likelihood, build those numerous and comfortable dwellings, under whose influence modern civilization has so far surpassed the barren *humanism* of the valley of the Nile."²

¹ Pp. 35, 36, 2d edition, Philadelphia, 1844.

² Mexico ; Aztec, Spanish, and Republican, Vol. I.

"If the far-off past has not always been able to write its name, it has left its mark," says Robert Cary Long, in his ingenious discourse on the ancient architecture of America, delivered before the New York Historical Society, in 1849.¹ "Its stony autographs loom out largely from the page of time. Egypt has piled hers in Pyramids; India has quaintly carved hers in the Rocks of Ellora; Greece has delicately shaped hers, in a form of ever living beauty, upon the Acropolis; Rome has rounded hers in magnificent proportions in the dome of the Pantheon; and the Middle Ages have 'illuminated' their signature with those heaven-reaching coruscations, the Gothic cathedrals." * * * * "In the monuments of the past we have the human deposit of the ages—the *truth of the historical past*. Architecture, in this view, is the geology of humanity. Ceasing its testimony at the present surface of the globe, geology tells nothing of that subsequent history which commences with the existence of men. Here, architecture resumes the thread of the narrative, and bears witness of that compound existence to which it owes its origin. * * * * That consecutiveness which is dimly descried in documents, in architecture is apparent; that human progress, in which all believe, but which so few show forth distinctly, is beautifully narrated in the monumental series."

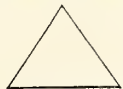
In the absence of unquestionable historic and recorded evidence, I have always considered *architectural forms*, disclosed in the remains of antiquity, as the most valuable hints for detecting the relative stages of the human family in the process of civilization. Craniology and osteologic science may show the relative capacity of races for civilization, but they do not demonstrate the degree attained; while the Druidical stonehenge, the Indian mound, the Egyptian tomb and palace, the Greek temple, and the Roman Coliseum, are types of the progressive intellectual grades of their respective builders.

It is true that, where there are intertribal or international communications between people, the arts of the most advanced may be adopted by those who are in the rear; but it is dangerous, and I think unscientific, to start with the theory that resemblances, or even identities, in any of the arts, indicate either international connection or imitation. The basis of all action is the mind, and we know that it originates similar inventions,—according to individual capacity,—throughout the most widely separated conditions of the human family.

"Analogies of this kind," says Baron Humboldt, in his *Voyage Pittoresque*, "prove very little in favor of the ancient intercommunication between people, for, under all the zones, men have indulged in a *rhythmic repetition* of the same forms."


To understand the force of this and its sensible value, let us recur to the simple and natural process in the law of inventive progress. A hunter or shepherd will content himself by leaning the branches of trees against each other to shield himself from sun or rain in his temporary bivouac, and, hence the first form is that of

the tent:




. If he is a wanderer, and inhabits, at times, the plains as well as the forest, he will construct a permanent and portable covering of skins and poles,

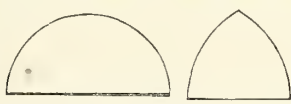
¹ Long's *Ancient Architecture of America*, pp. 5 and 6.

so as to constitute the Indian lodge, which preserves the same shape as the tent. As he becomes less nomadic, begins to possess property, family, flocks, and herds, and requires more covered space for protection as well as comfort, he discovers that a square affords more commodious room than an angle, and his edifice assumes a new shape by the use of several of his simple architectural elements, instead of two. Accordingly, he plants his stouter timbers upright in the ground, and lays across them a covering of branches and leaves, so as to form a square: . But

this, in the course of time, admits of improvement—especially as the flat covering is not as sure a protection against rain as his original tent; and, accordingly, on the last of his inventions he elevates the first, so as to preserve his space and insure

additional comfort: . Perhaps, instead of forming his tent by simple

boughs or poles, lodged against each other, he has contented himself with bending the saplings together, and thus produces the elemental shapes of the Roman and

Gothic arches: . As wandering families unite in tribes, and

tribes grow into communities, and communities associate in municipalities or nations, their most skilful builders discover that mechanical genius has no more elements for architectural progress in forms than a straight line and a curve; so that all invention is limited, by an irreversible law, to their wise and tasteful combination.

Is it hazarding too much, then, to assert that, in early stages of civilization, we must naturally expect to see much of the type of national *status* in architectural combinations of the mound and pyramid?



Again; is it venturing too far to suggest that, when people emerge from early stages of civilization, and rise to vigorous, masculine, and refined nationality, they abandon the propped weakness of leaning pyramidal shapes, and seek the massive, self-sustaining independence of upright, perpendicular forms?¹

¹ These are general suggestions upon the world's progress in mechanics and taste, and altogether independent of art as controlled by climatic or geological necessities. A perfectly flat roof in Switzerland would cave in under accumulated snows, and an unsupported edifice in a volcanic region would be destroyed wherever earthquakes were frequent and violent.

CHAPTER IV.

THE aborigines of our country at the period of the Discovery, or their ancestors, were all more or less engaged in building for defence or worship. The elaborate works of Squier, Davis, Whittlesey, and Lapham, published by the Smithsonian Institution, have described, perhaps everything of value among the Indian remains within our territory.¹

These aboriginal relics—chiefly earthworks—may be comprised in two classes: simple Mounds, and Enclosures bounded by parapets and circumvallations or walls. The mounds are asserted to have been places of sepulture, sacrifice, and worship, or sometimes devoted to various mixed uses; while the enclosures were intended either for defence, or for sacred or superstitious purposes. The rude pyramidal mounds were frequently of great and massive dimensions, while the *bird and beast shapes* of their ground plans, in Wisconsin, as described in the work of Mr. Lapham, are as singular as they are inexplicable.²

The mound, or *heap-shape*—derived, perhaps originally, from the earth that was piled over a body in burial—seems to have been the most common throughout our entire territory as far as the northern shores of the Gulf of Mexico and the Rio Grande. It indicates the early condition of art or the unprogressive character of the builders, who either disappeared from the land, degenerated into the modern Indian, or passed southward to become the progenitors of semi-civilization in more genial regions.

In the mounds have been found ornaments, carvings, pipes, skeletons, shells, spear and arrow-heads, hornstone knives, axes, copper chisels and gravers, silver, galena, and various utensils of pottery; but all the *forms* of these implements, and especially those of the domestic vessels and images, indicate a rude state of art, taste, invention, and wants. No discoveries have yet been made to show that the mound-builders communicated or preserved facts by permanent records or monuments; and their nearest approach to *printing* is a figured stamp, found, some years since, in a mound at Cincinnati, which resembles the stamps I have seen in Mexico, used by the ancient people of that region, either to impress marks upon paper or patterns on their stuffs.³

¹ See Squier's Paper in the 2d Vol. Trans. Am. Eth. Soc., pp. 136, 137, 138, and his Ancient Mon. Vall. Miss., and of N. York, &c. &c.; Whittlesey's Descrip. of Ancient Works in Ohio; Lapham's Antiq. of Wisconsin.

² See Lapham's Antiquities of Wisconsin in the Smithsonian Contributions.

³ This stamp, of which I possess a cast, is very accurately represented in Squier and Davis's Ancient Mon. Val. Mississippi, p. 275. The inscribed stones and rocks that have been found are very apocryphal as to period and purpose; nor are they numerous enough to indicate an ancient system.

Quitting the shores of the Gulf of Mexico, and penetrating the old northern territories of New Spain, we find, for the first time in our southern progress, the remains which have become so generally known in Spanish, as the "*CASAS GRANDES*," or Large Houses; all of which are probably ruins of villages and towns occupied by the aboriginal tribes described by Castañeda, in the expedition of Francisco Vasquez de Coronado, in 1541, in search of the rich cities which had been reported to exist in those northern regions. The accounts of Castañeda and of modern travellers, coincide as to the character of architecture, ground-plans, and general purposes of the remains; and it is here that we see *perpendicular walls*, another evidence of an improved degree of civilization. The houses were not built of stones, but of *adobés*, or sun-dried bricks; and, as the natives had no lime, they substituted for it a mixture of earth, coals, and ashes. Some of these houses were four stories high, while their interiors were reached by ladders from the outside, so as to render the external, *doorless* walls, protections against enemies in the wars which seem to have been almost constantly occurring. The village of Acuco, described by the Spanish writers as lying between Cibola and Tiguex, was built on top of a perpendicular rock, which could only be ascended by three hundred steep steps cut in the stone, and clambering eighteen feet more by the aid of simple holes or grooves in the precipice. The tribes are spoken of as agricultural and warlike, nor does it seem that they had advanced further in social progress than by constructions for defence and comfort, of a superior character to those of the tribes beyond the waters of the Rio Grande. The fact is established, by Coronado's expedition, says Mr. Gallatin, that "at the time of the conquest by Cortez, there was, northwardly, at the distance of eight hundred or one thousand miles from the city of Mexico, a collection of Indian tribes in a state of semi-civilization, *intermediary* between that of the Mexicans and the social state of any other aborigines."¹

Moving southward, we enter the present actual territory of the Mexican Republic, and encounter the first remarkable architectural remains of antiquity in the State of Zacatecas, on an eminence called the "*Cerro de los Edificios*," or Hill of the Buildings, situated about twelve leagues southwest from the city of Zacatecas, about one league north of La Quemada, and in the neighborhood of $22\frac{1}{2}^{\circ}$ north latitude, at an elevation of 7,406 feet above the sea. Clavigero speaks of Chico-mozoc, or Chico-comoc, a sojourning place of the Aztecs in their southward emigration, and inclines to the belief that these remains are the relics of their provisional architecture. A very full account of the ruins is given in Captain Lyons's travels in Mexico, and another in Nebel's "*Voyage Pittoresque et Archæologique*," in which the walls, squares, pyramids, terraces, roads, pavements, &c., are described and partially delineated. The site of the remains seems to have been the citadel, fortress, or defensive portion of a settlement which was spread out extensively over the adjacent plain. The northern side of the hill rises by an easy slope from the plain, and is guarded by a double wall and a kind of bastion; while on the other sides,

¹ See Castañeda, *Voyage à Cibola*, Paris, 1838. Am. Eth. Soc. Trans., Vol. II, p. lxxxiii of *introduction*. Mr. Gallatin of course means the "social state of any other" northern "aborigines." See, also, Mr. "Bartlett's Personal Narrative," in relation to the *North Mexican* remains.

the precipitous rocks of the hill itself form natural defences. The whole elevation is covered with fragments; the rock-built walls (many of which are twenty-two feet in thickness) are sometimes joined by mortar of no great tenacity, but are retained in their positions mainly by their massiveness.¹

If we leave these loftier regions of the table-lands of Mexico, and descend towards the eastern coast of Mexico, through the State of San Louis Potosi, we find the architectural remains, sculpture, &c., visited by Mr. Norman, in 1844.² The relics discovered by this intelligent traveller were of mounds, pyramids, edifices, tombs, images, fragments of *obsidian* knives or arrows, and pottery. Hewn blocks of concrete sandstone were, in many instances, the materials used for building; and, besides the images of clay, he found others rudely cut in stone in bold relief. The most significant of these remains, as well as the most extensive evidences of civic civilization, were placed, by Mr. Norman, at about 22° 9' of north latitude, and 98° 31' of west longitude.

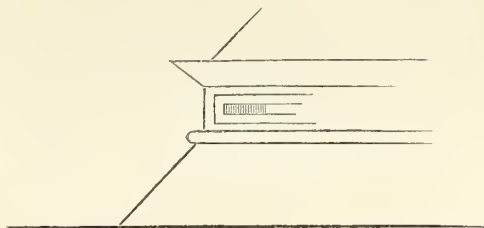
The State of Vera Cruz, in Mexico, adjoins Tamaulipas on the south, and here, in the vicinity of Panuco, an old town of the Huestecos, Mr. Norman found remains of architecture and sculpture scattered over an area of many miles, the history and traditions of which are altogether unknown among the present indolent inhabitants of the region. Three leagues south of Panuco are more ruins, known as those of Chacuaco, represented as covering about three square leagues, all of which seem to have been comprised within the bounds of a large city. Five leagues southwest of these are some remains at San Nicolas; and six leagues, in nearly the same direction, are others, at La Trinidad. More relics of the same character, together with quantities of pottery, vessels, clay images, &c. &c., are found in the same district; and it is to be regretted that the character of the inhabitants, as well as the health of the region, do not invite a more thorough scientific examination of the State.

Sixteen leagues from the sea, and fifty-two north of the city of Vera Cruz, on the eastern slope of the Cordillera, and two leagues from the Indian hamlet of Papantla, lie, spread over the plain, the massive ruins of an ancient city, which, in its palmy days, was perhaps more than a mile and a half in circuit. The best account we have of this spot is to be found in Nebel's work, and, if we can rely on the accuracy of his drawing of the Pyramid—called by the neighboring Indians "El Tajin"—it is unquestionably one of the most perfect and symmetrical relics of antiquity within the present limits of the Mexican republic. Time has done its work upon the edifice; but, according to Nebel, the whole form and character of the architecture are still discernible beneath the trees and vines that have sprung up among its loosened joints. The pyramid is represented by this artist as being built of sandstone, nicely squared and united, and covered with a hard stucco, which seems to have been painted. Its base, on all sides, is one hundred and twenty feet; and as it is ascended by a stair, composed of fifty-seven steps, each

¹ See Lyons's Travels in Mexico; Nebel's Voyage, &c. &c.; Mexico; Aztec, Spanish, and Republican; Clavigero, 'Storia de Messico.'

² Norman's Rambles by Land and Water, and Notes of Travel in Cuba and Mexico.

measuring a foot in height, it may be calculated that the summit was at least sixty feet from the ground. It consists of seven stories or bodies, each decreasing in size as it ascends from the base, and all of the form shown by the annexed profile of the lower story :—



A few miles from Papantla, near an Indian *ranch*o, called Mapilca, Mr. Nebel discovered more *pyramids*, carved stones, and the ruins of an extensive town, but everything was so overgrown with the tropical vegetation, that he found it impossible to penetrate the district, and examine the relics. The artist has preserved the drawing of only a single sculptured stone, which he describes as twenty-one feet long and of close-grained granite. The figures carved on the fragment differ from the ancient sculptures found east of the main Cordillera, and somewhat resemble those in Oajaca. By excavating in front of the stone, Mr. Nebel discovered a road formed of irregular blocks, not unlike the old Roman pavements.

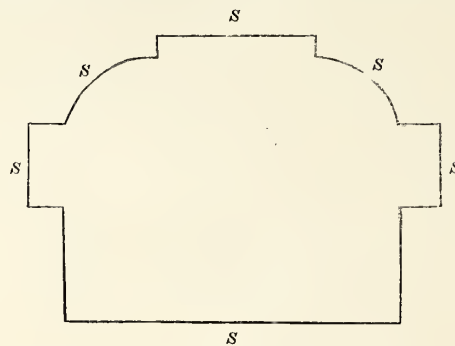
About fifteen leagues west of Papantla, and still in the State of Vera Cruz, in a small plain at the foot of the eastern Cordillera, are the remains known as those of Tusapan, which is supposed to have been a settlement of Totonacs. The vestiges of this small aboriginal establishment are nearly obliterated, and the only striking objects at present are a fountain—in human shape,—and a pyramid of four stories or bodies, in which the pyramidal and *vertical* lines are again united—the second story being reached, at a door, by a flight of steps. This pyramid is built of *stones*, of unequal sizes, and has a base of thirty feet on each of its four sides. In front of the door stands a pedestal, but the idol it probably supported has been destroyed. Around the pyramid are scattered masses of stone, rudely carved, to represent men and various animals; yet, from the inferior manner in which the work is executed, we may judge that the art of *ornamentation* was just beginning to be engrafted on the pyramidal and vertical architecture of the builders. The fountain to which I have alluded, is cut from solid rock; is nineteen feet high, and represents a female in an indecent, squatting attitude. The remains of a pipe which conveyed water to the image, is still seen in the back of the head, and the liquid passed through the body of the gigantic work, till it was discharged below the figure into a basin and canal, which carried it to the neighboring town.

On the Island of Sacrificios, just south of the present city of Vera Cruz, there are no longer any architectural remains of edifices used for those brutal rites which made the spot so celebrated at the period of the conquest; but the soil has yielded many relics in the shape of vases, images, carvings, sepulchres, and skeletons; and it is said that fragments of pottery and obsidian are still found in considerable quantities.

If we go westward from this spot, and penetrate the State of Vera Cruz until we

strike a ridge of mountains in the district of Misantla, about thirty miles from the well known and beautiful town of Jalapa, we encounter a precipitous elevation, near the Cerro of Estillero, on whose narrow strip of table-land the remains of an extensive town were discovered in 1835. It is described as perfectly isolated. Steep rocks and ravines surround the mountain, and beyond these precipices there is a lofty wall of hills from the summit of which the sea is visible. As the mountain plain is approached, the traveller discovers a broken wall of massive stones united by a weak cement, which seems to have constituted the boundary or fortification of a circular area or open space, in whose centre a pyramid, with three stages (but without any mixture of vertical lines in the shape), rises to a height of eighty feet, having a base of forty feet, on two sides, by forty-nine on the two others. Beyond the encircling wall are the remains of the town, extending northward for nearly three miles along the table-land. The stone foundations—large, square, and massive—are still distinguishable, and the lines of the streets may be traced in blocks, about 300 yards from each other. Some of the walls of these edifices are still standing, in broken masses, at a height of three or four feet from the ground. South of the town are the fragments of a low wall, evidently intended for defence in that quarter; while, north of it, there is a tongue of land, jutting out towards the precipitous edge of the mountain, the centre of which is occupied by a mound, supposed by explorers to have been the cemetery of the ancient inhabitants. Twelve tombs, built of stone, and a number of carved figures, vases, and utensils were exhumed; but the images and minor objects were taken to Vera Cruz, and all trace of them has unfortunately been lost.¹

In November, 1843, further east of these remains, Don José Maria Esteva found in a thick forest, about three miles and a half from the Puente Nacional or national bridge, the interesting remains of architecture which had been first visited in 1819 or '20 by a clergyman named Cabeça de Vaca. The temple or teocalli *seems to be an exceedingly steep pyramid of steps*, the base of which is shaped as follows:



It is elevated on a mount about one hundred and fifty feet above the level of a stream which flows at its feet; and, in consequence of the inequality of the ground, is thirty-three Spanish feet high on some of its sides and forty-two on others. It fronts eastwardly, and the platform of its top is reached by thirty-four

¹ Mosaico Mejicano.

steps, so as to be almost perpendicular to the base. This platform is forty-eight Spanish feet broad and seventy long, and the steps rise on all the sides indicated on the above ground-plan by the letter *S*. The entire structure is of sand, lime, and large stones taken from the bed of the stream; and though very old and of course covered with a thick mantle of tropical plants and trees, its form is declared to be almost perfect. At first it was supposed to be solid, but an entrance was discovered from the west, but so small and clogged that the explorers were not disposed to venture within for fear of venomous insects and serpents with which the interior in all likelihood is swarming.¹

¹ See Museo Mejicano, II, 465, for plate and description.

CHAPTER V.

EAST of the State of Vera Cruz, but separated from it by Tobasco and the southern bend of the Gulf of Mexico, lies the State of Yucatan; and, southeast of it, the State of Chiapas.

The physical character of these States demonstrates the prolific and agreeable climate that probably attracted the large population with which the region must have been filled before the Spanish conquest. Since 1840, three important works have been issued by the American press relative to the architectural remains in these States. Two of these are from the pen and pencil of the late Messrs. John L. Stephens and Catherwood, while the third is the result of a visit paid to Yucatan in 1841-2, by Mr. B. M. Norman.¹ In the "long, irregular route" pursued by Stephens and Catherwood, "they discovered the remains of *fifty-four ancient cities*, most of them but a short distance apart, though, from the great change that has taken place in the country and the breaking up of old roads, having no direct communication with each other. With but few exceptions, all were lost, buried, and unknown, never before visited by a stranger, and some of them, perhaps, never looked upon by the eyes of a white man." In Chiapas, the travellers encountered remarkable architectural remains at Ocozingo and Palenque, between 16° and 18° of N. latitude; and passing thence to Yucatan, they found the more northern peninsular region crowded with monumental ruins at Maxcanu, Uxmal, Sacbey, Xampon, Sanacte, Chun-hu-hu, Labpakh, Iturbide, Mayapan, San Francisco, Ticul, Nochacab, Xoch, Kabah, Sabatsche, Labna, Kenick, Izamal, Saceacal, Tecax, Akil, Mani, Macoba, Becanchen, Peto, Chichen, in the interior of the State; and at Tuloom, Tancar, and on the island of Cozumel, on its eastern coast. All these architectural remnants of the past, lie between the 18° and 21½° of N. latitude. Of all this numerous catalogue, the remains at Palenque in Chiapas, and of Uxmal and Chichen in Yucatan, are certainly the most remarkable for their architectural forms as well as embellishments; but they have been made known so popularly throughout the world by the books of our countrymen, that it is unnecessary to dwell upon their characteristics in this summary sketch. Mr. Stephens believed, after full investigation, that most of these cities and towns were occupied by the original builders and their descendants, at the time of the conquest.² If any reliance is to be placed

¹ Rambles in Yucatan, by B. M. Norman, 1 vol.; Stephens' Incidents of Travel in Central America, Chiapa, and Yucatan, 2 vols.; and Stephens' Incidents of Travels in Yucatan, 2 vols., both of the latter works being illustrated by Mr. Catherwood, who has since published many of his drawings in a separate folio.

² See his first work, Vol. II, Chapter XXVI; and his second, Vol. II, p. 444. See, also, Trans. Am. Eth. Soc., Vol. I, and Stephens' Yucatan, for an account of the calendar and language of the people, and some other ethnographic facts.

on the theory of progressive architectural forms, the drawings of Catherwood show that these tribes or nations of the aborigines had advanced to a very important stage, though their style of "ornamentation" indicates that they had not entirely abandoned the barbaric for the beautiful.

Returning again, northward, from the extreme southern limits of Mexico, we find, in the State of Puebla—which lies directly west of the northern part of the State of Vera Cruz—at about 19° of north latitude, the well known remains of the Pyramid of Cholula. It was originally constructed of *adobés*, or sun-dried bricks, and may therefore be considered a sort of earthwork. The huge pyramidal mass rises abruptly from the plain of Puebla to a height of 204 feet,¹ and was composed of four stages or stories connected by terraces; but the materials of the mound have been so worn by the attrition of time and seasons, that at present it resembles one of those Indian heaps of our own West, with which the reader has been made acquainted in the volumes of Squier and Davis. The most striking and valuable facts in regard to it—as its shape was simply pyramidal—are to be found in the labor and materials which were expended on a work whose base line measures 1,060 feet, and whose present elevation reaches 204.

Adjoining the State of Puebla, immediately west of it, and, of course, in the neighborhood of the same latitude, we enter the State of Mexico, the seat and centre of the Aztec population which submitted to Cortez. The Spanish settlement which occupied the site of the ancient capital, very soon obliterated every *architectural* vestige of the aborigines, so that I am not aware, either from my own personal examinations, or from the reports of travellers, that any remains of temples, palaces, pyramids, or other edifices, are preserved in or very near the city of Mexico. The National Museum, and a few private collections, are full of small relics of various characters, which have been found on the surface or disinterred in the neighborhood. These relics are either of stone, carved with skill or roughly; or of clay burnt to the requisite hardness for utensils. To the images or objects, connected, as is supposed, with the religion and science of the Aztecs, various and perhaps arbitrary names have often been affixed by antiquarians, but their description belongs to another branch of archæology than that which now engages our attention.²

But, if the city of Mexico and its *immediate* neighborhood are destitute of ancient architecture, the present limits of the State are not without some valuable remains of that character. Across the Lake of Tezcoco, at a distance of about twelve miles from the capital, and in the northwestern part of the modern town of Tezcoco, the

¹ According to the accurate *scientific* measurements of Lieut. Semmes, of the U. S. Navy, and Lieut. Beauregard, of the U. S. Engineers, thus differing from Humboldt, whose work states the elevation to be 162 feet. See Mexico, Aztec, Spanish, and Republican, II, 230.

² The reader will find a full account of these lesser remains in my first and second volumes of "Mexico, Aztec, Spanish, and Republican;" and, of two or three of the most important, in Gama's "Descripción de las dos Piedras, &c." The *size and sculpture* of some of the larger stones are quite wonderful; the image called "Teoyaomiqui," is cut from a *single block of basalt*, nine feet high and five and a half broad; the "Sacrificial stone," also of basalt, is cylindrical, nine feet in diameter and three high; while the "Calendar stone," of the same material, is eleven feet eight inches in diameter, and about two feet in thickness.

explorer will find a shapeless mass of burnt bricks, mortar, and earth, thickly overgrown with shrubbery and aloes, among which there are several slabs of basalt neatly squared, and laid due north and south, forming, in all likelihood, the only fragments of one of those royal residences for which the Tezcocan princes were celebrated by the conquerors. When Mr. Poinsett visited Tezcoco, in 1825, this heap had not been pillaged, for architectural purposes, as much as it has been since; and, among the ruins, he found a *regularly arched* and well-built passage, sewer, or aqueduct, formed of cut stones of the size of bricks, cemented with the strong mortar used by the aborigines of the Valley in all their works. In the door of a room, he noticed the remains of a *very flat arch*, the stones of which were of prodigious bulk.

In the southern portion of Tezcoco, are the extensive remains of *three* pyramidal masses, whose forms were still tolerably perfect in 1842. They adjoin each other in a direct line from north to south; and, according to a rough measurement by myself, are about 400 feet in extent on each front of their bases. These erections were constructed partly of burnt and partly of sun-dried bricks, mixed with fragments of pottery and thick coverings of cement, through which small canals had been grooved to carry off the water from the upper terrace. Bernal Diaz del Castillo says that the chief *teocalli* of Tezcoco was ascended by 117 steps; and, from the quantity of obsidian fragments, vessels, and images, found on the sides of these structures, it may be surmised that, like the teocallis of the capital, they were devoted to the same bloody rites that are described in the writings of the Spanish chroniclers and of Mr. Prescott.

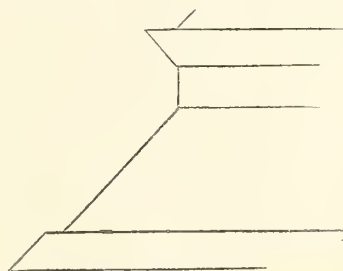
About three miles east of Tezcoco, across the gently sloping levels, a sharp, conical mountain rises precipitously from the plain, and though now covered with a thick growth of nopals, agaves, and bushes, seems to have been the site of some Aztec or Tezcocan works of considerable importance. The hill is full of the *debris* of ancient pottery and *obsidian*; and, about fifty feet below the top, facing the north, the mountain rock has been cut into seats surrounding a sort of grotto or recess in a steep wall, which tradition says was once covered with a calendar. The sculptures have been entirely destroyed by modern Indians, who cut them to pieces in search for treasure, as soon as they found the spot became an object of interest to foreigners.

Winding downwards by the remains of ancient terraces cut in the hill, we find the path suddenly terminated by an abrupt wall which plunges down the mountain precipitously for two hundred feet. Here, another recess has been cut in the solid rock, also surrounded by seats, while in the centre of the area is a basin, into which the water was conveyed by a system of ingenious engineering. East of this hill, and filling a ravine, are the remains of the stone, masonry, earthwork, and aqueduct pipes, by which the ancients brought the mountain streams to the Hill of Tezcocingo, from the more eastern and loftier elevations.¹

¹ There is an account, in Spanish, of the palace and gardens of Nezahualcoyotl, at Tezcocingo, extracted from Ixtlilxochil's History of the Chichimecas, in the third volume of Prescott's History of the Conquest of Mexico, p. 430. The hill referred to by the Indian historian is, probably, the one whose remains I have noticed.

A ride on horseback of three hours will bring a traveller from Tezcoco, north-eastwardly, to the village of San Juan, lying in a plain hemmed in by mountain spurs and ridges on all sides except towards the east, where a depression in the chain leads into the plain of Otumba. In the centre of this valley of San Juan are the two pyramids known as the Tonatiuh-Ytzagual, or House of the Sun, and the Meztli-Ytzagual, or House of the Moon, and generally denominated the Pyramids of Teotihuacan. At the distance from which they are first beheld in crossing the hills, the foliage and bushes that cover them are not easily discerned; but as they are approached, the work of nature appears to have encroached on that of art to such a degree, that all the sharp outlines of the pyramid are blurred and broken. In advancing towards these works, the evident traces of an old road, covered for several inches with hard cement, may still be observed; and, at their feet, smaller mounds and stone heaps extend in long lines from the southern side of the "House of the Moon." Earth and perhaps *adobes*, seem to have been the chief materials used in the erection of these pyramids; but, in many places, the remains of a thick coating of cement with which they were incrustured in the days of their perfection, were still to be found in the year 1842. The base line of the House of the Sun is stated, by Mr. Glennie, to be 682 feet, and its perpendicular height 121.

Returning again to the city of Mexico, and going thence southward over the mountain barrier that surrounds the valley of Mexico, we descend into the warmer regions of the valley of Cuernavaca; and, about eighteen miles south of the town of that name, near the latitude north of $18\frac{1}{2}$ degrees, but still in the State of Mexico, we encounter the *Cerro* of Xochicalco, or "hill of flowers," which, a few years back, was still crested by the remains of a *stone pyramid*. The base of the hill is reached across a wide plain intersected by ravines, and is surrounded by the remains of a deep wide ditch. The summit is gained by winding along five spiral terraces, supported with stones joined by cement. Along the edge of this winding path are the remains of bulwarks fashioned like the bastions of a fortification. On the top of the hill there is a broad level, the eastern portion of which is occupied by three truncated cones, while on the three other sides of the esplanade there are masses of stones, (which may have formed parts of similar tumuli), all of which were evidently carefully cut and covered with stucco. In the centre of the area are the remains of the first story or body of the pyramid, which, before its destruction by the neighboring planters, who used the carved and squared stones for building, is said to have consisted of five pyramidal masses placed on each other, somewhat in the style of the pyramid of Papántla. The story that has been spared is rectan-



Outline of part of Xochicalco.

gular, faces due north and south, and measures sixty-four feet on the northern front above the plinth, and fifty-eight on the western. The distance between the plinth and frieze is about ten feet, the breadth of the frieze three and a half feet, and the height of the cornice one foot five inches.

The most perfect portion is the northern front, and here the sculpture *in relief* on the *pyramid* is between three and four inches deep and distinctly perfect. The massive stones, some of which are seven feet long and two feet six inches broad, are all laid upon each other without cement, and kept together simply by the weight of the incumbent mass.

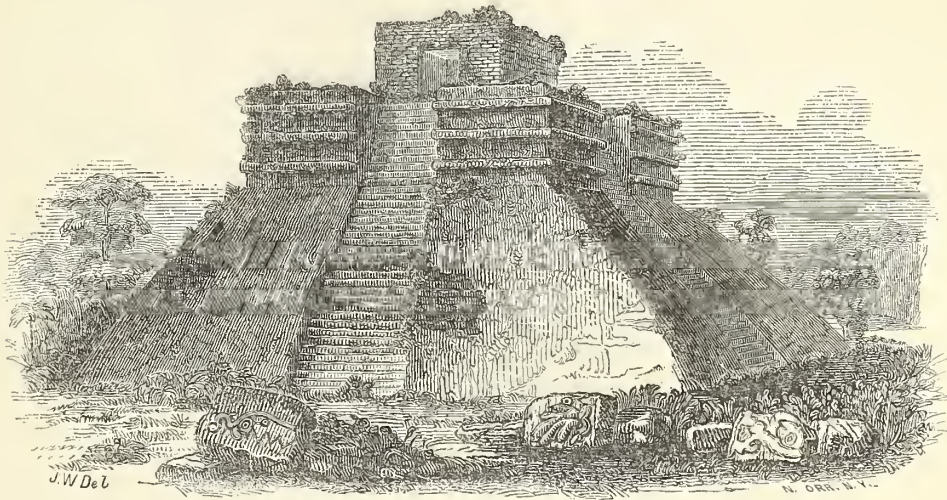
The dimensions of the fragments of so fine a structure will give the reader an idea of the ingenuity as well as the labor employed in its building; for it must be recollected that the aboriginal skill was not taxed in the shaping or adornment of the stones in a neighboring quarry, but that the weighty materials were drawn from a considerable distance and carried up a hill 300 feet high, without the use of horses. The sculptures on this monument are somewhat rude and grotesque, but they appear to resemble the images delineated in the works of Stephens and Catherwood, as found by them in Yucatan and Chiapas. There seems to be no doubt, from the lines and irregularity of the stones, that the reliefs were cut after the pyramid was erected.

Besides the *external* works of pyramid and terraces, it is said that the *interior* of the hill was hollowed into chambers. Some years since a party of gentlemen, under orders from the Mexican government, explored the subterranean portions, and, after groping through narrow passages, whose walls were covered with a hard glistening gray cement, they came to three entrances between two huge pillars cut in the mountain rock. Through these portals they entered a chamber, whose roof was a regular cupola built of stones ranged in diminishing circles, while, at the top of the dome was an aperture which probably led to the surface of the earth or to the summit of the pyramid. Nebel, who visited the ruins some years ago, relates, as an Indian tradition, that this aperture was immediately above an altar placed in the centre of the chamber, and that the sun's rays fell directly on the centre of the shrine when the luminary was vertical! This idea is perhaps a fair specimen of the traditions and guesses with which ingenious archæologists bewilder themselves and their readers.¹

¹ See *Revesta Mejicana*, I, 539. Mexico; Aztec, Spanish, and Republican, II, 284. Nebel, *Voyage Archæologique et Pittoresque*: Plate—Xochicalco.

CHAPTER VI.

SOUTH of the State of Vera Cruz, adjoining the State of Chiapas, and on the western slopes of the Cordillera, bounded by the Pacific, lies the State of Oajaca. This region, from the great quantity of architectural and image-remains found throughout it, seems to have been the seat of an advanced civilization, though its history is much less known than that of the central portions of Mexico. The State has been by no means thoroughly explored, either for its resources or antiquities; but most interesting remains are known to exist at Tachila, where there are tumuli; at Monte Alban, two leagues S. W. from the town of Oajaca, where there are tumuli and pyramids; at Coyúla; at San Juan de los Cúes; at Guengola; at Quiotepec, and at Mitla. Most of the relics present pyramidal shapes, in combination with the vertical; a specimen of which is here copied from Lord Kingsborough's plates of Dupaix's expedition.

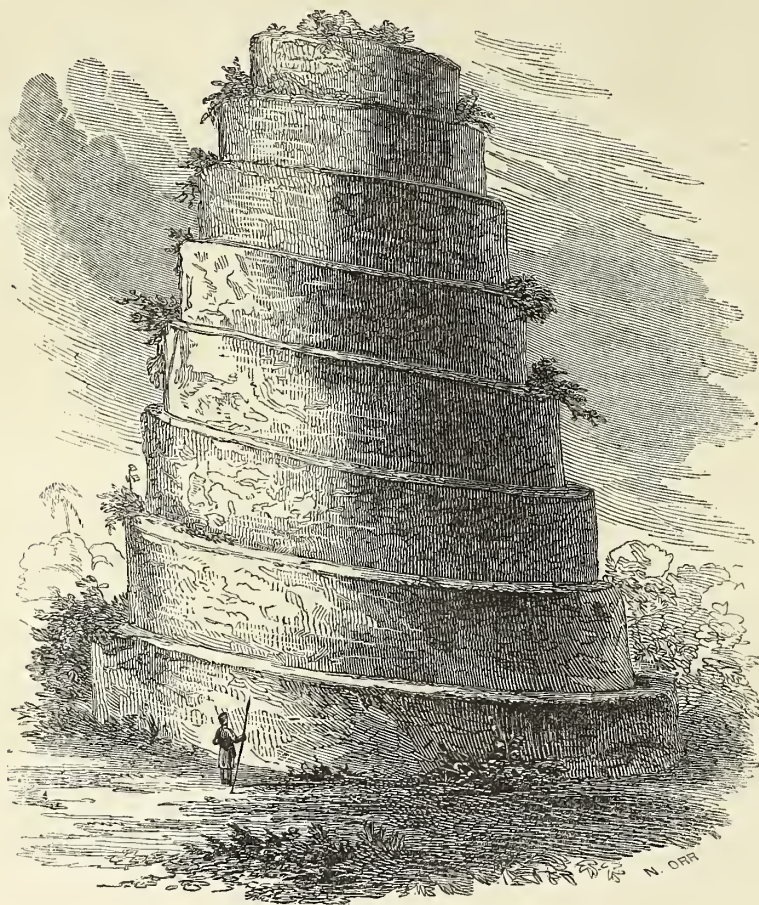


Remains near Tehuantepec, Oajaca.

In 1844, an examination was made, by order of the Governor of Oajaca, of the remains near Quiotepec, a village about thirty-two leagues northwardly from the capital of the State. These ruins, originally constructed of cut stone, are found on the Cerro de las Juntas, or Union Hill, so called from its neighborhood to the *junction* of the Rivers Salado and Quiotepec.

The eminence is said to be covered, in every direction, with remains of works of a *defensive* character, designed, as it appears, to protect the dwellings erected on the hill, and the large temple and palace, whose massive ruins still crown the summit. These fragments of the past are represented to be somewhat similar to those of Chicocomoc or Quemada, in the northern part of Mexico, which I have already described in the notice of architectural antiquities in Zacatecas. The resemblance

consists in the style of building, and the mingling of worship and civic defences. There does not appear, however, to be any similarity between these ruins and the remains found in Yucatan and Chiapas, where the designs are much carved and ornamented, denoting, perhaps, a higher degree of luxury, taste, and civilization. The temples of Quioitepec, and that of Chicocomoc, or Quemada, are both pyramidal, like most of the Mexican structures; but the architectural style generally, at the former place, is rather more sumptuous than that at Quemada.¹



Remains near Tehuantepec, Oajaca.

The most interesting, perhaps, of the architectural remains within the *present* bounds of Mexico, in Oajaca, are those of MICTLA; and, as it was not until the year 1494 that the Aztecs *finally* subdued the people of MICTLA, in the province of Huaxaca,² it is not likely that the constructive talent or tastes of that region were modified or controlled by the inhabitants of the Valley of Anahuac. The same remark applies to all the other districts, in every quarter outside the valley, where the aborigines became subject to the Aztecs, either by alliance or conquest. It is

¹ See Museo Mejicano, Vol. III, p. 329, for drawings of these monuments. See, also, Vol. I, p. 401, of the same work, and Vol. III, p. 135, for accounts of Zapotec remains; and Vol. I, p. 246, for an imperfect notice of military fortifications, &c. &c., near Guengola, Tehuantepec.

² Gama; Gallatin, Eth. Soc. Trans., Vol. I, 137. Mexican Chronology. Clavigero, Lond. ed., Vol. I, p. 185.

very probable that hundreds of the unfortunate Zapotec inhabitants of Mitla and Huaxaca, or Oajaca, who had become prisoners to Aheutzotl, in *previous* wars, swelled the splendid but brutal sacrifice of human victims, with which the great temple of Mexico was dedicated in 1487.¹

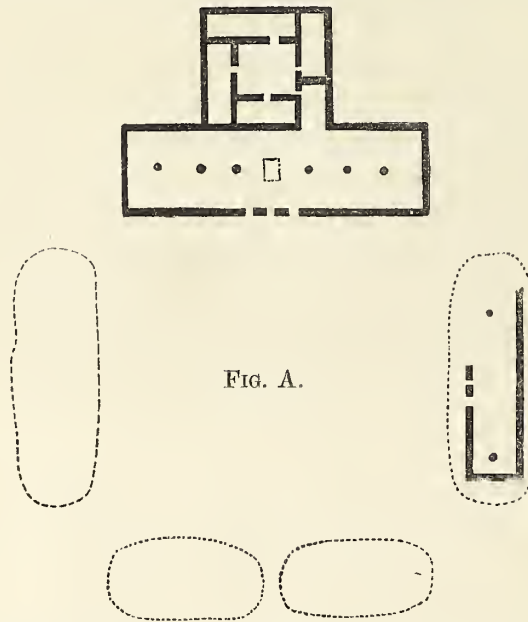
Very soon after the *first* success of Cortez in the city of Mexico, the people of Oajaca sent embassies to claim his protection; and, as soon as the country was absolutely conquered, and the victor had learned the value of the region from the reports of Alvarado and the Spaniards who began to settle there, he seems to have selected it as his own particular domain. When the crown raised him to the dignity of "Marquess of the Valley of Oajaca," he was endowed with a vast tract of land in the province, and there is no doubt that his twenty large towns, and twenty-three thousand vassals, were to be found mainly within the boundary of his Zapotec territory. These facts are mentioned to show that the acts of Cortez himself indicate the value of the region in which Mitla lies; and, in all likelihood, illustrate the degree of civilization it possessed prior to the Aztec conquest. It is to be regretted that there are so few traces of the ancient Zapotec tribes, and that we are left to grope in the dark, with scarcely a cobweb to guide us through the ruined labyrinth of their history. The great natural features and characteristics of the region remain of course the same; and from its general salubrity, its fertility of soil, the nature of its productions, its geological structure, and beauty of natural scenery, we may fairly suppose that its famous "valley" possessed many attractions similar to those which induced the Aztecs to make their lodgement in the Vale of Anahuac. Zachila, which is a corruption of the word Záchillattóô, as written in an ancient MS. seen by Dupaix, is situated in the midst of the great Valley of Oajaca, and, in former times, is said to have been the seat and court of the Zapotec kings. Ten or twelve leagues southeastwardly from the town of Oajaca, engulfed in a deep valley, crested with *cerros* whose dry, sterile, and poorly watered soil is probably more prolific of snakes and poisonous insects than of anything else, lies the modern village of San Pablo-Mitlan. Its name was derived from Mictlan, or Miquitlan, "a place of sadness," which it probably received from the Aztecs, while the Zapotec appellation seems to have been Liuba or Leoba, "the tomb." It is here that we

¹ The cruelty of the Mexican sacrifices of *human beings* has always been one of the principal arguments against the civilization, and in favor of the barbarism of the Aztecs. All religion includes the idea of sacrifice—spiritual or physical—actual or symbolical. The Christian sacrifices his selfish nature; the Idolater propitiates by victims. The Aztec sacrifice arose, probably, from a blended motive of propitiation and *policy*. The human sacrifice by that people was, perhaps, founded on the idea that the best way of getting rid of culprits, dangerous people, and prisoners of war taken in immense numbers, and whom it was impossible to support or retain in subjection without converting a large portion of their small kingdom into a jail—was to offer them to their gods. It is true, that *savage* nations, such as the Africans of Dahomé, &c., admit the purest *barbaric* notions of human sacrifice; but can such cruel contradictions be attributed—with their more brutal motives—to the Aztecs, who, in other respects, possessed so many titles to civilization? Still, it must be admitted, that if we regard the grossness of the Aztec idolatry alone, at the time of the conquest, we could form no idea of that people's intellectual progress in other respects. Yet their architecture, laws, government, private life, and astronomical knowledge, show that their social condition was much more refined than their faith, so that we must suppose the Valley of Anahuac was full of priestcraft and superstition, and that its cultivated society was in advance of its religion.

find the architectural remains which were first made known, partially, by the drawings of Don Luis Martin, in 1802, of Dupaix, in 1806, and are now shown in the accompanying pictures, drawn on the spot, in 1837, by Mr. J. G. Sawkins.

According to the traditions reported by the earlier explorers, the chief object designed in the erection of these edifices was to preserve the remains of Zapotec princes; and it is alleged, that at the death of a son or brother, the sovereign retired to this place, and taking up his residence in a portion of the building which was calculated for habitation, performed religious services and gave vent to ceremonious sorrow. Other reports, of the same period, say that these solitary and dreary abodes were inhabited by an association of priests who devoted their lives to expiatory services for the dead. It must be confessed that the site is admirably calculated for any one, or all, of these gloomy purposes; for, according to the accounts of travellers, the silence of the lonely valley, which is reached conveniently but by one approach, is unbroken even by the songs of birds. Perhaps it was—not only in location, but destination—an aboriginal Escorial, where life, death, and religion mingled their austere but courtly pageants.

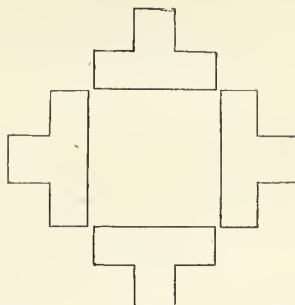
Plate No. 1 presents a general picture of the ruins; while the following cut, A, taken from a drawing by Martin, in 1802 (and, perhaps, *not* strictly accurate, except as to *parts* of the main edifice), shows a ground-plan or sketch of the whole group, so as to make the scene intelligible to the reader.¹



A large portion of the valley in the neighborhood of the three mountains, seen in Plate 1, is said to be still covered with heaps indicating the sites of ancient architecture; but, as most of the ground is under cultivation, every relic of the architecture itself is destroyed, and even the ground-plans have become so indistinct

¹ Martin, for instance, seems to indicate five remains, while there are only four; and gives two columns at the entrance of the remaining building, while there are three.

as to make all researches useless. But the group which at present interests us, seems, from Mr. Sawkins's observations, to have consisted originally of four connected, or nearly connected, buildings, each one fronting a cardinal point, the whole inclosing a square court. The original erections *may*, in all likelihood, have resembled the following sketch, in their ground plan:—



Of the southernmost of these edifices, Mr. Sawkins found five upright columns still standing—four supporting portions of a wall, while the fifth, which was taller than the rest, stood alone. These fragments are seen in Plate No. 1, immediately in front of the spectator. On the west of the square, there are the remains of crumbling and indistinct walls; on the north, everything seems to be obliterated; while, on the east of the quadrangle, is the edifice forming the main feature of Plate No. 1, and which is represented, at large, *from the rear*, in Plate No. 2.

Passing over the court-yard, or quadrangle—still floored with a hard cement and slabs of sandstone—we approach the entrance of this building, which consists of four apertures between three low, square columns, or door jambs, through which the interior can only be reached in a crouching posture. These four apertures admit the passage, through each, of but one person at a time. On either side of this portal, as seen in No. 1, there are niches or recesses, on the front, which were probably filled by images. This portion of the exterior wall, or *façade*, is said by Mr. Sawkins to be, at present, without any adornments; but whether such was its original state, or whether it has been stripped of its coverings by the neighboring Mexicans, we are not distinctly informed. The large stones forming the cornice over the entrance, were especially remarked by our traveller, as indicating—both by *size* and neatness of workmanship—the ingenuity and power of the builders.¹

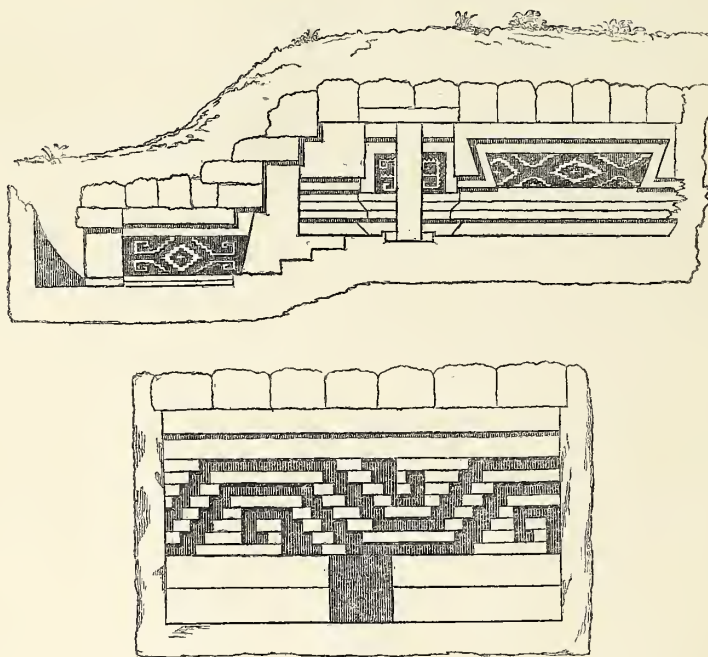
Upon entering through one of the low and narrow adits, just described, Mr. Sawkins found himself in an oblong court or apartment, of very considerable size. Its walls were covered with a rich, highly polished, red plaster, so hard as to resist the knife. At the two ends of this court there were niches, as well as one directly in front of the entrance; but the images or utensils they were intended for by the aborigines, had long disappeared. It was in a line along the centre of this

¹ Mr. Glennie, a British traveller, states the dimensions of some of the stones above the entrances of these buildings to be: eighteen feet long, four feet ten inches broad, three feet six inches thick; another is nineteen feet four inches long, four feet ten and a half inches broad, and three feet nine inches thick; a third is nineteen feet six inches long, four feet ten inches broad, and three feet four inches thick!

apartment that Martin, in 1802, and Dupaix, four years after, found the six *cylindrical stone columns*, without bases or capitals and of a single shaft, the position of which is shown in the ground-plan I have given, on another page, from Martin's drawing.¹ But when Mr. Sawkins visited Mitla, in 1837, the columns had been removed, probably by the present villagers, for their domestic purposes. These columns had evidently been intended to support the roof which formerly covered this portion of the edifice, and are represented by Dupaix to have been one *vara* in diameter and five and a half *varas* high; or *near* three feet in diameter by about fifteen in altitude!

The large court, or saloon, just described, communicated at its rear, by a narrow passage (as will be seen in Martin's plan), with another body of the edifice, which that artist represents to have been a sort of *interior court*, surrounded by four rooms without windows, each of which was entered by a single door. Don Luis Martin represents it, evidently, as a structure resembling the modern edifices of the Mexicans, which are similarly constructed around a *patio*, or court, without external windows. It is probable that such may have been the state of the ruins in 1802, but when they were seen by Mr. Sawkins, in 1837, he found the whole interior quadrangle an unoccupied area, while three of its walls were covered with nine long recesses on each side, in three tiers, each recess being large enough for the reception of a human body. These vaults were plastered with the same kind of cement that was found in the first apartment, but they were all empty.

In the centre of the *main* court-yard of the whole group, there are said to be subterranean apartments similar to those which have been found elsewhere in this valley, and which have been represented as adorned in the following cuts.



¹ See cut on page 28.

If we leave the interior of this building, we may now obtain an accurate and excellent idea of its outside from the minute drawings of Mr. Sawkins, in Plate No. 2. It is a monument which cannot fail to strike the student of American architectural archæology as being the first effort of the aborigines that not only abandons the vertical and pyramidal, but absolutely *reverses* the latter, and, at the same time, indulges in a style of elaborate and *regular* adornment which far surpasses many remains of Etruscan art, and may almost be said to resemble the Greek. These exteriors have been constructed with great labor as well as ingenuity. Above the ground, the building,—whose *interior* wall is formed of *adobés*, or sun-dried bricks,—is cased, for about five feet, with a pyramidal base of stone slabs about two inches thick; and, from this point, the walls, still of stone, and sharply cut, begin to *incline outwards* till they reach a height of near twenty-five feet. Each of the seven exterior walls, as seen in Plate 2, is divided into nine compartments, corresponding with the sepulchral recesses or vaults we noticed on the interior. From the point where the walls strike outwards from the perpendicular, all the *corners* and *divisions* appear to be formed by stouter stones than the slabs which encase the base. The bands, which are the frames, as it were, of each of these sixty-three divisions, are all of solid stone, cleanly and sharply chiselled; while the ornamental figures contained in the squares are formed by a Mosaic work of small square stones, artistically placed beside each other, in high relief, and imbedded in a mass of adamantine cement, similar to that which covers the interior walls. The spectator who looks at one end of this singular building, with its basket-like outline and *beautiful* adornments, might almost fancy that he stood in front of a gigantic *sarcophagus*, designed and sculptured in advanced periods of Grecian and Roman art.¹

About half a mile west of these ruins, Mr. Sawkins found a large, dark red, porphyritic column, which, for the sake of illustration, he has taken the liberty to represent in Plate No. 2, as lying near the edifice. It had probably been carried off from the building by some vandals, and abandoned before they could devote it to their private uses. The artist states that the marks of the chisel or chipping tool are still visible on this column, and remarks that many blocks, from these and other edifices of the valley, were employed in building the church which is seen in Plate No. 1. To the southwest, near the point indicated in the picture by the union of the three hills with the plain, Mr. Sawkins saw the ruins of many other edifices, but all were so dilapidated that nothing could be made out. Wherever he detected the remains of *cement* or *mortar*, either on the roads, in the open air, or on walls, he found it still perfectly hard and serviceable, and but little injured either by time or attrition. There seems to have been a great fondness among the Zapotecs for *red*, and it is alleged that a color, which is so unpicturesque in architecture, seems to have been plentifully distributed over the exterior as well as the interior of the remarkable edifice we have been considering.

Plate No. 3 exhibits the characteristics of the image-remains of the Zapotecs.

¹ Humboldt says that the walls extend, on a *line*, about forty metres, and are five or six high: a metre, in round numbers, is 39 $\frac{1}{2}$ English inches.

No. 1 was drawn by me from the original in sandstone, which I found in Mexico in 1842, in the fine collection of the CONDE DEL PEÑASCO. Archæologists who are familiar with the style of images found among Aztec remains, in the Valley of Mexico, as well as with the same class of objects from Yucatan, Tabasco, and elsewhere in that quarter, will at once observe their difference from the images represented in the plate. Grotesque and hideous as they are, they seem to possess, in the symmetrical arrangement of the designs, and in their *originality*, many more elements of *art* than are found in the images of the Aztec or Maya tribes. I have introduced them here for the purpose of hinting that, in all the Zapotec remains of architecture and ornament that have come down to us, we find traces of rather more inventive talent and taste than among the other aboriginal tribes with which we are acquainted.¹

About a league northeasterly from the ruins of Mitla, Mr. Sawkins visited the remains of the Zapotec fortification which he has represented in Plate No. 4. A steep, isolated hill, about three hundred feet high, with a base nearly a league in extent, rises in this spot and commands the whole plain. The broad, oval summit, whose greatest diameter is about six hundred feet, is reached with difficulty from all sides except the southern. By this approach, the entrance or gateway is attained in a wall about six feet thick and eighteen high. The plate shows the character of the works, which contain a second or inner wall, as is seen in the rear of the first behind the gateway; while in the interior, are the remains of three edifices, which were probably intended for the barracks of the defenders. Two of these buildings are on the southern side, overlooking the approach by the gateway, while the remaining one is placed towards the east. It seems from the heaps of *piled* stones, still to be seen by modern travellers, and from the huge masses of isolated rock found by Mr. Sawkins and represented in his sketch, that these were the principal weapons with which the defenders protected themselves against assailants. How the possessors of this ancient fortress supplied themselves with water, on the top of an abrupt, isolated hill of 300 feet elevation, we are not yet informed by any explorers. It is stated by some travellers that several thousand men might have gathered for protection within these walls; but it may well be doubted whether the structure was ever designed for anything but a temporary refuge in times of extreme danger, when the plain had been invaded and ravaged.

I have now completed a catalogue of such architectural remains in Mexico as have become known to us, either by personal observation or the reports of travellers. If we proceed southward, beyond Yucatan and Chiapas, and pass throughout the various states of what is geographically known as "Central America," we find, in all of them, innumerable images and vessels, and fewer monumental or architectural

¹ The only other *ornamental* remains possessing nearly equal claims to symmetrical design, are represented in some Peruvian ruins near Truxillo, South America. See Rivero and Von Tschudi.

remains of importance than we encountered in Mexico. The taste, too, as well as the design and sculpture, is inferior; nor shall we again meet with traces of evident superiority, until we pass the broad belts of the equatorial forests and rivers, and descend beyond the Amazon to the ancient realm of the Incas in Peru.

I will not close this paper by offering any theory in regard to climatic influences on the degrees of civilization found among the aboriginal races of our continent at the period of the Spanish conquest. Still, I hope it may not be considered improper to remark that, while the hot regions in the neighborhood of the equatorial part of our hemisphere appear nearly destitute of monumental, traditional, or recorded remains of their inhabitants, we find, according to all these sources of knowledge, that the best samples of aboriginal civilization have apparently originated and ripened, between 10 and 25 degrees of north latitude, and between 10 and 25 degrees of south latitude. While the equatorial heat degenerated man into an indolent vegetation, the northern and southern portions of the tropics rendered him progressive and fostered his social instincts. From these points, the marks of civilization seem gradually to fade away towards both poles, till they merge, through the nomadic warrior, into the squalid Esquimaux of the north, and, through the Araucanian, into the barbarous Fuegian of the south.

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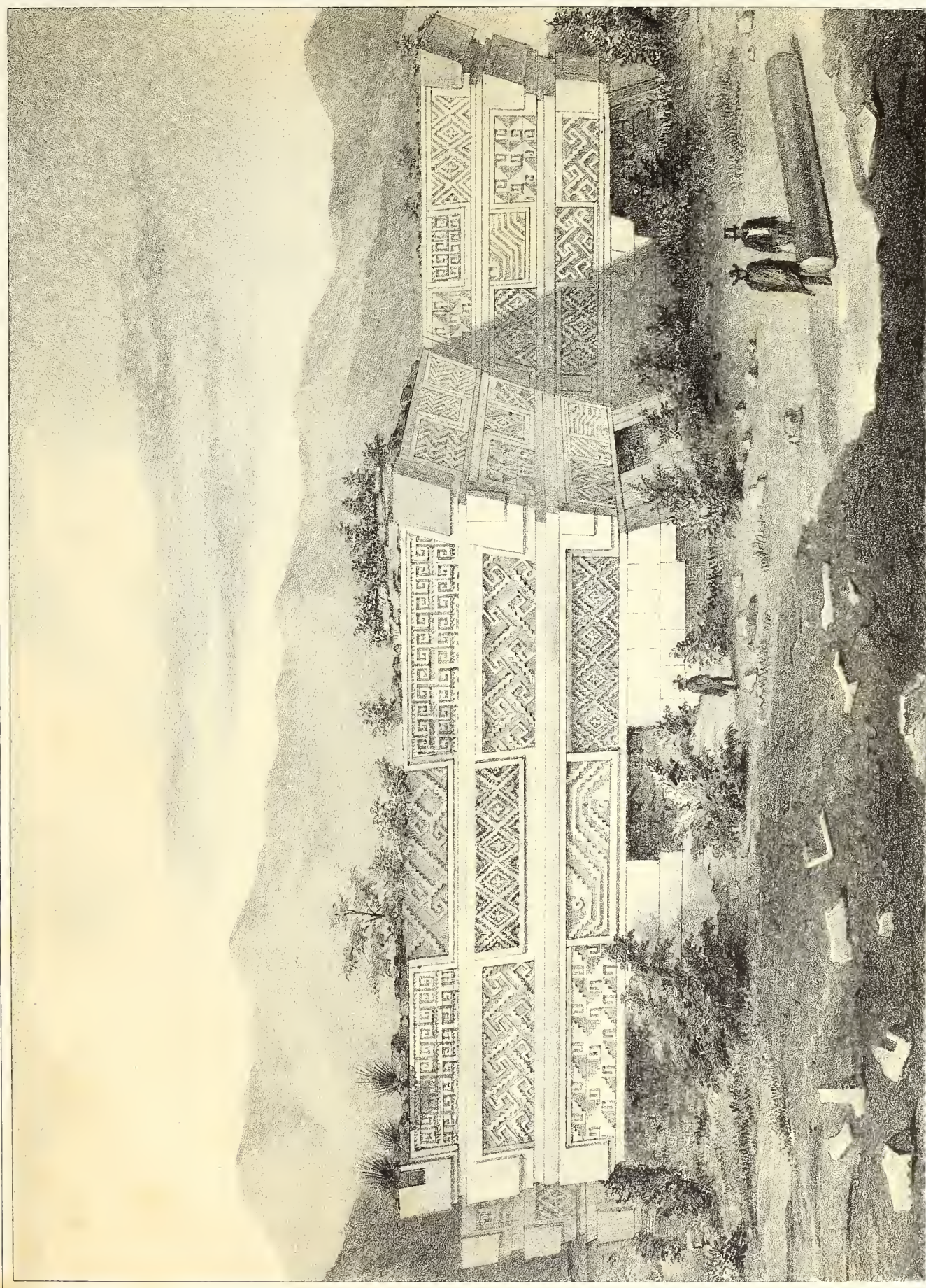
DECEMBER, 1856.



J. G. Savkins Del.

A GENERAL VIEW OF THE ARCHITECTURAL REMAINS AT MITLA.

ARCHITECTURAL RUINS NEAR MITLA.



IDS FOUND AT MITLA.

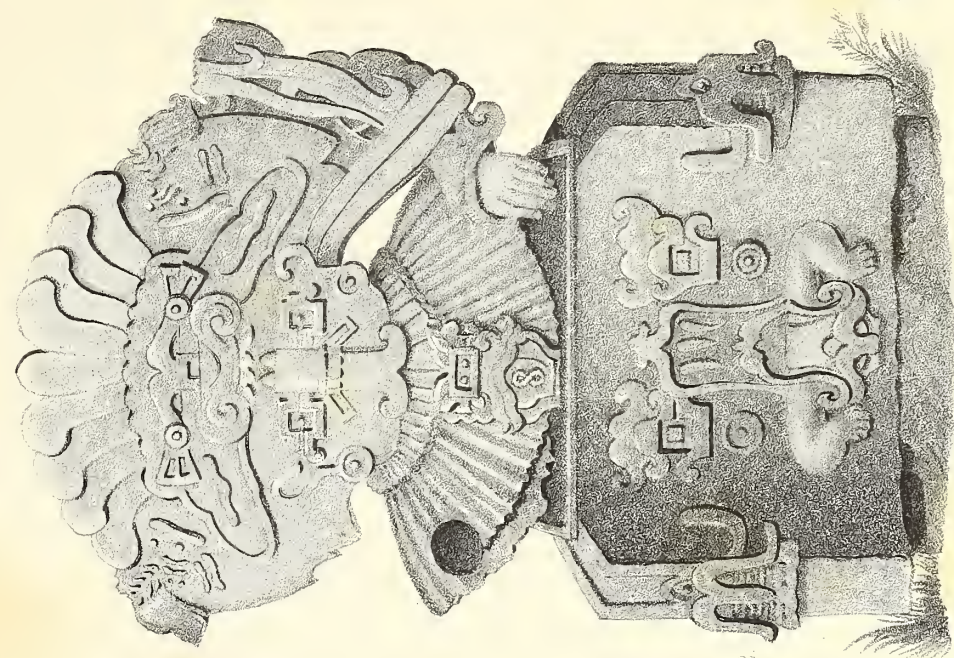


Fig. 2.

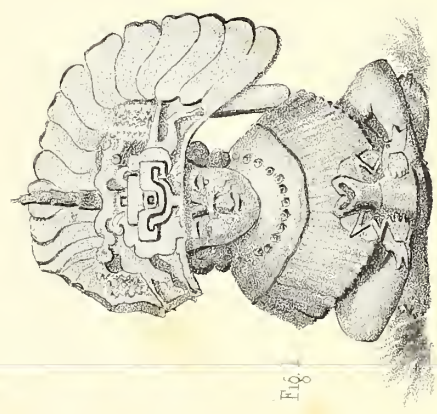


Fig. 1.

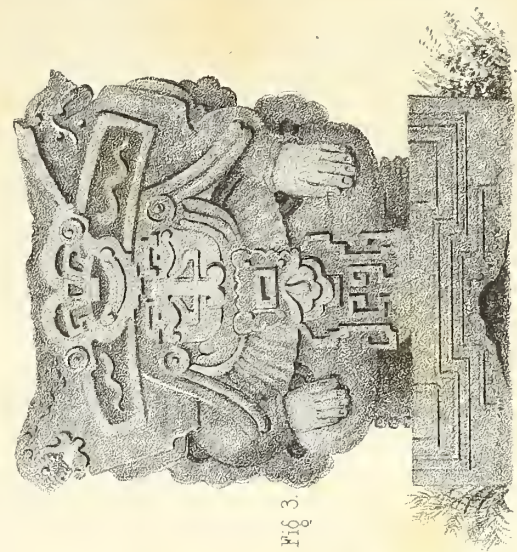


Fig. 3.



ANCIENT FORTIFICATION NEAR MITLA.

